In the Claims

1. (Previously Presented) A CT system comprising:

a rotatable gantry having an opening for receiving a subject to be scanned;

an HF electromagnetic energy source configured to project a number of HF electromagnetic energy beams toward the subject;

a generator configured to energize the HF electromagnetic energy source to at least a first energy state and a second energy state;

a hub;

a number of HF electromagnetic energy filters in a spoked relationship with the hub and positional between the HF electromagnetic energy source and the subject, the number of HF electromagnetic energy filters including at least a first filter and a second filter wherein the first filter is positioned between the HF electromagnetic energy source and the subject by rotation of the hub when the HF electromagnetic energy source is energized to the first energy state and the second filter is positioned between the HF electromagnetic energy source and the subject by rotation of the hub when the HF electromagnetic energy source is energized to the second energy state; and

wherein only one of the first filter and the second filter is positioned between the HF electromagnetic energy source and the subject when the HF electromagnetic energy source is energized to either one of the first energy state or the second energy state.

2. (Original) The CT system of claim 1 wherein the HF electromagnetic energy source and the number of HF electromagnetic energy filters are rotatable about the subject.

3. (Original) The CT system of claim 1 further comprising:

a set of HF electromagnetic energy detectors configured to generate a set of electrical signals indicative of HF electromagnetic energy attenuated by the subject;

a DAS configured to receive the set of electrical signals; and

an image reconstructor connected to the DAS and configured to reconstruct an image of the subject from the electrical signals received by the DAS.

4. (Original) The CT system of claim 1 further comprising a movable table configured to position the subject within the opening.

5. (Original) The CT system of claim 4 incorporated into a medical imaging device and wherein the subject is a medical patient.

6. (Original) The CT system of claim 4 wherein the movable table is configured to convey articles through the opening wherein the articles include pieces of luggage/baggage and packages.

7. (Original) The CT system of claim 6 incorporated into at least one of an airport inspection apparatus and a postal inspection apparatus.

8. (Previously Presented) A controller configured to acquire CT imaging data at more than one chromatic energy state, the controller having instructions to:

energize an HF electromagnetic energy source configured to project an HF electromagnetic energy beam toward a subject to be scanned to a first voltage potential;

position only a first portion of a filtering apparatus between the subject and the HF electromagnetic energy source along a path of rotation of a hub of the filtering apparatus in a spoked relationship with the first portion during energization of the HF electromagnetic energy source to the first voltage potential;

energize the HF electromagnetic energy source to a second voltage potential; and

position only a second portion of the filtering apparatus between the subject and the HF electromagnetic energy source along the path of rotation of the hub in a spoked relationship with the second portion during energization of the HF electromagnetic energy source to the second voltage potential.

9. (Previously Presented) The controller of claim 8 having further instructions to:

energize the HF electromagnetic energy source to the first voltage potential such that a burst of HF electromagnetic energy is projected toward the subject and simultaneously therewith rotate the first portion by the hub between the subject and the HF electromagnetic energy source; and

energize the HF electromagnetic energy source to the second voltage potential such that a burst of HF electromagnetic energy is projected toward the subject and simultaneously therewith rotate the second portion by the hub between the subject and the HF electromagnetic energy source.

10. (Previously Presented) The controller of claim 8 wherein the filtering apparatus includes a single filter and wherein the first portion has a filtering power different than that of the second portion.

11. (Previously Presented) The controller of claim 8 wherein the filtering apparatus includes a first filter and a second filter in a spoked relationship with the hub and wherein the first filter comprises the first portion and the second portion and the second portion comprises a first portion and a second portion, the controller having further instructions to:

position the first portion of the first filter between the subject and the HF electromagnetic energy source along the path of rotation during energization of the HF electromagnetic energy source to the first voltage potential;

position the second portion of the first filter between the subject and the HF electromagnetic energy source along the path of rotation during energization of the HF electromagnetic energy source to the second voltage potential;

position the first portion of the second filter between the subject and the HF electromagnetic energy source along the path of rotation during energization of the HF electromagnetic energy source to a third voltage potential; and

position the second portion of the second filter between the subject and the HF electromagnetic energy source along the path of rotation during energization of the HF electromagnetic energy source to a fourth voltage potential.

12. (Previously Presented) The controller of claim 11 having further instructions to:

position the first filter between the subject and a portion of the HF electromagnetic energy source along the path of rotation during energization of the HF electromagnetic energy source to the first voltage potential and the second voltage potential; and

position the second filter between the subject and a portion of the HF electromagnetic energy source along another path of rotation during energization of the HF electromagnetic energy source to the third voltage potential and the fourth voltage potential.

13. (Original) The controller of claim 9 incorporated into a medical imaging apparatus configured to acquire medical diagnostic data of a medical patient.

14. (Original) The controller of claim 9 incorporated into a non-invasive parcel inspection apparatus configured to non-invasively determine contents within a parcel.

15. (Original) The controller of claim 14 wherein the non-invasive parcel inspection apparatus incorporated into at least one of a postal inspection system and an airport baggage inspection system.

16. (Previously Presented) A method of acquiring imaging data at more than one chromatic energy comprising the steps of:

projecting a first beam of electromagnetic energy along a single projection path toward a subject to be scanned;

positioning a first filter in the single projection path during projection of the first beam by rotation of a hub in a spoked relationship with the first filter;

projecting a second beam of electromagnetic energy along the single projection path toward the subject; and

positioning a second filter in the single projection path during projection of the second beam by rotation of the hub in a spoked relationship with the second filter.

17. (Previously Presented) The method of claim 16 further comprising the steps of:

energizing an HF electromagnetic energy source to a first voltage to generate the first beam of electromagnetic energy;

rotating the hub to position the first filter along a path of rotation such that the first filter is in the projection path during energization of the HF electromagnetic energy source to the first voltage;

energizing the HF electromagnetic source to a second voltage to generate the second beam of electromagnetic energy; and

rotating the hub to position the second filter along the path of rotation such that the second filter is in the projection path during energization of the HF electromagnetic energy source to the second voltage.

18. (Original) The method of claim 16 further comprising the step of acquiring imaging data with a first HF electromagnetic energy beam having a signal strength substantially equal to a signal strength of a second HF electromagnetic energy beam.

19. (Previously Presented) A computer readable storage medium having a computer program stored thereon and representing a set of instructions that when executed by a computer causes the computer to:

energize an HF electromagnetic energy source to a first voltage to cause the HF electromagnetic energy source to project a first beam of electromagnetic energy toward a subject to be scanned;

rotate a hub to position a first filter, in a spoked relationship with the hub, between the HF electromagnetic energy source and the subject during energization of the HF electromagnetic energy source to the first voltage;

energize the HF electromagnetic energy source to a second voltage to cause the HF electromagnetic energy source to project a second beam of electromagnetic energy toward the subject; and

rotate the hub to remove the first filter from being positioned between the HF electromagnetic energy source and the subject and position a second filter, in a spoked relationship with the hub, between the HF electromagnetic energy source and the subject during energization of the HF electromagnetic energy source to the second voltage.

20. (Original) The computer readable storage medium of claim 19 wherein the set of instructions further causes the computer to rotate the first filter and the second filter about the subject along a common path of rotation.

21. (Original) The computer readable storage medium of claim 19 wherein the set of instructions further causes the computer to rotate the first filter about the subject along a first path of rotation and rotate the second filter about the subject along a second path of rotation.

22. (Original) The computer readable storage medium of claim 19 incorporated into a medical imaging apparatus configured to acquire diagnostic imaging data of a medical patient.

23. (Original) The computer readable storage medium of claim 19 incorporated into a non-invasive parcel inspection apparatus including at least one of a postal inspection apparatus and a baggage inspection apparatus.

24. (Previously Presented) A filtering apparatus for a radiation emitting imaging system, the filtering apparatus comprising:

a hub having a generally circular cross-section and having a number of connection ports;

a first filter connected to the hub at a first connection port, the first filter having a first filtering power; and

a second filter connected to the hub at a second connection port, the second filter having a second filtering power;

wherein the first and second filters are in a spoked relationship with the hub.

25. (Original) The filtering apparatus of claim 24 wherein the first connection port is positioned 90° along the hub from the second connection port.

26. (Original) The filtering apparatus of claim 24 wherein the hub is configured to rotate the first filter into a path of HF electromagnetic energy when an HF electromagnetic energy source is energized to a first voltage and rotate the second filter into the path of HF energy when the HF electromagnetic energy projection source is energized to a second voltage.

27. (Previously Presented) The filtering apparatus of claim 24 wherein the hub is cylindrical or spherical, the filtering apparatus further comprising a third filter connected to the hub at a third connection port and a fourth filter connected to the hub at a fourth connection port, the first, the second, the third and the fourth filters having differing filtering powers and the third connection port being positioned 90° along the hub from the fourth connection port;

wherein the first, the second, the third, and the fourth filters are snap-fit, bolted, or integrated as a single integral body in the spoked relationship with the hub.